

DERWENT- 1994-180907

ACC-NO:

DERWENT- 199422

WEEK:

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TITLE: Ionising **radiation** registration device - has scintillator to convert **radiation** into light flashes and uses photodetector, in form of layer of solid soln. to convert light flashes

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PATENT-ASSIGNEE: KOMASHCHENKO V N[KOMAI]

PRIORITY-DATA: 1982SU-3442866 (May 26, 1982)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
SU 1060035	A1 February 7, 1993	N/A	006	G01T 001/20

APPLICATION-DATA:

PUB-NO	APPL-DESCRIPTOR	APPL-NO	APPL-DATE
SU 1060035	A1 N/A	1982SU-3442866	May 26, 1982

INT-CL (IPC): G01T001/20

ABSTRACTED-PUB-NO: SU 1060035A

BASIC-ABSTRACT:

The device is made of a semiconducting **scintillator** with a photo-detector applied to it. The photodetector is made in the form of a layer of solid soln. forming a heterogeneous **pn** junction with the material of the **scintillator**.

Ionising **radiation** passes through an inlet opening (10) onto the crystal of a **scintillator** (1), exciting flashes of light **radiation**,

which spread through the space of the **scintillator** (1) to a photodetector (3) where the light is absorbed in a layer (4) of a solid soln. of the **scintillator** (1) generate electron hole pairs, disrupting equilibrium state of current of charge carriers in the **pn** layer (4) between a low ohm layer (2) and the photodetector (3). The resulting voltage drop on a resistor (8) is registered by a measuring instrument (9). After ending of action of a flow of photons, generation of charge carriers ceases and dynamic equilibrium is restored.

USE/ADVANTAGE - Used for measurement of intensity of continuous and pulse flows of **radiation**. Better action speed and sensitivity.

CHOSEN- Dwg.1/1

DRAWING:

TITLE- IONISE RADIATE REGISTER DEVICE SCINTILLATION CONVERT

TERMS: RADIATE LIGHT FLASH PHOTODETECTOR FORM LAYER SOLID
SOLUTION CONVERT LIGHT FLASH

DERWENT-CLASS: K08 S03

CPI-CODES: K08-A;

EPI-CODES: S03-G02B1;

SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C1994-082217

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